

# Counterfire Operations for Task Force XXI

by Captain Christopher P. Taylor

*At 0530 as the experimental force (EXFOR) prepared to cross the line of departure, the brigade's Q-36 Firefinder radar transmitted an acquisition. Within 30 seconds, the 3d Battalion, 16th Field Artillery's tactical operations center (TOC) had the mission; two minutes later, the first volley of dual-purpose improved conventional munitions (DPICM) was impacting.*

*As the opposing force's (OPFOR's) regimental artillery group (RAG) displaced, the Strikers—combat observation lasing teams in high-mobility multipurpose wheeled vehicles (HMMWVs)—sent in target grid corrections. Within ten minutes, it was over. The RAG had suffered 33 percent losses and never recovered, setting the conditions for Task Force XXI's dominant maneuver throughout its sector.*

**D**uring our March 1997 Task Force XXI advanced warfighting experiment (AWE) at the National Training Center (NTC), Fort Irwin, California, the improved reconnaissance, intelligence, surveillance and target acquisition (RISTA) capabilities coupled with the Q-36 radar gave us unique opportunities for the counterfire fight. These counterfire assets allowed our brigade task force to track the OPFOR's artillery early enough for not only reactive, but also proactive counterfire.

**Proactive Counterfire.** Before the fight, the brigade S2 templated the enemy artillery groups. Using terrain products provided by the engineer battalion that highlighted artillery slope, the reinforcing FA battalion S2 refined the template and placed call-for-fire zones (CFFZs) around them. This allowed the radar technician, S2 and S3 to determine and coordinate for the primary, alternate and supplemental positions for

the radar as well as coordinate for division artillery (Div Arty) Q-37 support for any zones the Q-36 was unable to cover.

Once the fight started, the joint surveillance and target attack radar system (JSTARS) began to confirm the initial template. JSTARS was linked to the brigade TOC, and the moving target indicators (MTIs) it produced allowed us to see formations and routes of march plus count the number of vehicles. Combined with the OPFOR order of battle, JSTARS allowed us to assess the total enemy strength, differentiate between the artillery groups and reposition our assets (Q-36 or Paladins), as necessary, for the counterfire fight. JSTARS was available throughout each battle for the majority of the rotation.

As the fight moved closer, the enemy artillery moved into the range of our unmanned aerial vehicle (UAV). Depending on whether or not the UAV was being used to target or collect, it was the

first set of "eyes" that allowed us to begin the proactive counterfire fight. If the fire support element (FSE) could focus the UAV on targeting, we processed proactive counterfire missions. However, if the UAV focused on collecting intelligence, we received enough information to refine our template, identify weapons types and confirm the enemy's true strength, but not enough details for targeting. The UAV served two purposes: it allowed us time to reposition our assets for the reactive fight and time to refine the CFFZs.

By far the most valuable assets we had were the abundance of human eyes to see and send accurate grids as well as designate for laser-guided munitions. With six Strikers and the reconnaissance battalion's 18 recon teams, the brigade S2 dedicated assets to search for OPFOR artillery and cover named areas of interest (NAIs).

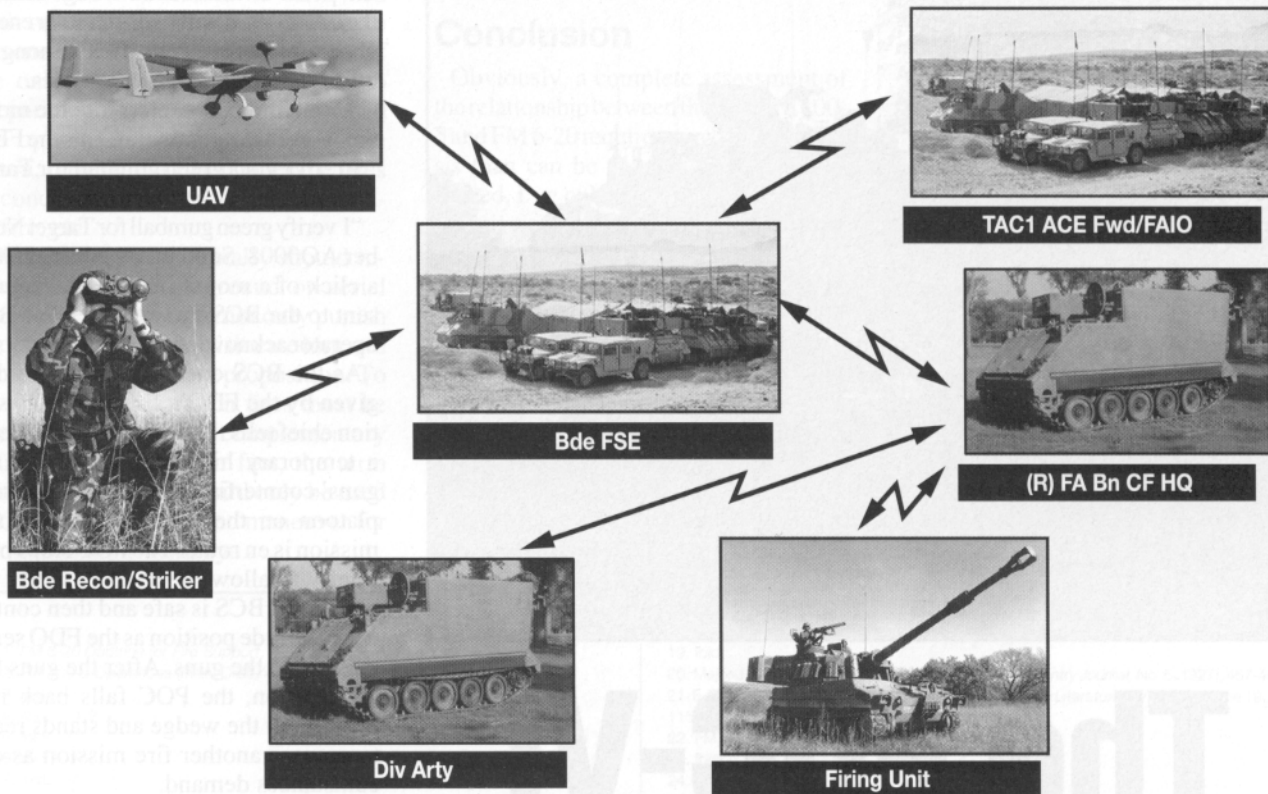
These brigade assets sent calls-for-fire directly to the FSE, which processed them digitally if they were from the Strikers or by voice if from a recon team. Other brigade assets that contributed to seeing and killing the enemy artillery counterfire fight included the OH-58D Kiowa Warrior helicopters, Army attack aviation and close air support (CAS) aircraft.

**Reactive Counterfire.** Once the remainder of the RAG began to fire, we transitioned to the reactive fight. Throughout the proactive fight, we had prepared for this transition using all sensors available, including the Applique, to refine our zones.

The Applique, which shows where approximately 85 percent of the vehicles on the battlefield are, provided two distinct advantages. First, it allowed the counterfire headquarters to concentrate on updating and refining critical friendly zones (CFZs) which, in turn, allowed the FSE to concentrate on other events. All the fire support coordinator (FSCOORD) had to provide was the commander's intent to ensure the headquarters' focus was correct.

Second, because we had nearly perfect battlefield awareness and could superimpose the zones on a digital map, our zones were much more efficient. That meant our zones covered friendly formations, areas and battle positions but very little empty desert.

During the battle, adjusting the zones was as easy as moving the icon on the Applique and updating the radar deployment order (RDO). Sending the



#### Legend:

ACE Fwd = Analysis Control Element Forward

Bde = Brigade

Bn = Battalion

CF = Counterfire

Div Art = Division Artillery

FAIO = Field Artillery Intelligence Officer

FSE = Fire Support Element

HQ = Headquarters

(R) = Reinforcing

Recon = Reconnaissance

TAC1 = Tactical Command Post (Current Operations)

UAV = Unmanned Aerial Vehicle

### Proactive Counterfire Operations

RDO also was simplified. The Force XXI software package in the advanced Field Artillery tactical data system (AFATDS) allowed radar zones to be entered as battlefield geometry. We entered and verified all zones in AFATDS before crossing the line of departure (LD). Transmitting the zones to the radar was as simple as clicking on the Q-36 symbol, selecting the zones from the menu and transmitting them directly to the radar shelter.

Execution of the reactive counterfire fight was digital. The Q-36 transmitted acquisitions to the S2's AFATDS. If the acquisition violated either a CFZ or CFFZ, it appeared as an active target. After analysis by the S2, the S3 decided if the target could be serviced and it was then transmitted directly to the reinforcing battalion fire direction center (FDC) through a local area network (LAN). Any acquisition that did not violate a zone appeared as an inactive target and was plotted and processed. Those targets that could not be serviced were sent

to the brigade S2 along with the S2's analysis. Depending on the phase of the battle and the target, requests for additional fires were sent to the Div Art to engage with general support (GS) assets.

**Conclusion.** Task Force XXI AWE initiatives brought many new capabilities to the counterfire fight. Our improved ability to find and destroy enemy artillery early with the UAV and the brigade's Strikers and recon teams allowed the EXFOR to disrupt the enemy RAG early and never let it recover.

When the remnants of the enemy artillery finally were ready to fire, innovations such as the Applique and AFATDS allowed us greater efficiency and improved zone management for the reactive counterfire fight, reducing the acquire-to-fire times and denying the enemy the ability to mass effectively.

While these initiatives enhanced the fight, the keys to a reinforcing Field Artillery battalion S2's counterfire success are still the basics: conduct a thorough intelligence preparation of the bat-

tlefield (IPB); know the enemy's capabilities and tactics; and fight him, not the plan. These skills, combined with tomorrow's technology, will ensure the Field Artillery continues to be the King of Battle.



Captain Christopher P. Taylor is the Assistant Operations Officer for the 3d Battalion, 16th Field Artillery, 4th Infantry Division (Mechanized), Fort Hood, Texas. During the Task Force XXI Advanced Warfighter Experiment, he was the S2 for the same battalion, which reinforced 4th Battalion, 42d Field Artillery, also in the 4th Infantry Division. His previous assignments include Fire Support Officer (FSO) for A Company, 3d Battalion, 67th Armor, and Assistant FSO for 2d Brigade, both in the 4th Infantry Division; and Fire Direction Officer and Platoon Leader in B Battery, 1st Battalion, 15th Field Artillery, 2d Infantry Division in Korea. Among other schools, Captain Taylor is a graduate of the Multiple-Launch Rocket System (MLRS) Cadre Course at Fort Sill, Oklahoma, and the University of Maine.